

# IRON SHIPS.

Rec 10/4/71

No. 5933 Survey held at Port Glasgow Date, first Survey 7th Sept 1870 Last Survey 31st March 1871

on the New Iron Screw Steamer "Strathclyde" Master Wm. Pearson

Tonnage under Tonnage Deck	1312.15	ONE, OR TWO DECKED VESSELS.	THREE DECKED VESSELS.	Built at <u>Port Glasgow</u>
Ditto of <u>Lower</u> Deck, <u>or</u> <u>Awning Deck</u>	597.16	Half moulded breadth ... 17.5	Half Moulded Breadth... 17.5	When built <u>1870 &amp; 1871</u> Launched <u>24th Jan'y 1871</u>
Ditto of Poop, or Raised Qr. Dk.		Depth from upper part of Keel to top of Upper Deck Beams ... 20.5	Total Depth if three or more Decks ... 27.5	By whom built <u>Blackwood &amp; Gordon</u>
Length of Houses	150.9	Girth of Half Midship Frame ... 34.1	Total Girth of Half Midship Frame ... 41.1	Owners <u>Burrell &amp; McLaren</u>
Length of Forecastle		1st Number Length ... 72.1	3rd Number Length ... 86.1	Port belonging to <u>Glasgow</u>
Length of Main Deck	1950.72	2nd Number Length ... 288.5	4th Number Length ... 288.5	Destined Voyage <u>Glasgow to London &amp; Bombay</u>
Length of Lower Deck	71.90	2nd Number Length ... 208.0085	4th Number Length ... 248.3985	If Surveyed while Building, Afloat, or in Dry Dock <u>While Building &amp; Afloat</u>
Length of Upper Deck	1878.82	Depths to Length ... 10 1/2 under 11	Breadths to Length ... 8 7/8 under 9	
Length of Lower Deck	154.59			

Deck Rule, 288 7/8 Moulded Breadth, 35 Depth from top of Keel to Deck Beam, as per Rule .. 27 7/8 Power of Engines, 180 No. of Decks, Two, plus 3rd No. of Tiers of Beams Three

Dimensions of Ship per Register, length, 290 breadth, 35.2 depth, 18

	Inches in Ship.	Inches required per Rule.	Inches in Ship.	Inches required per Rule.	Inches in Ship.	Inches required per Rule.	Inches in Ship.	Inches required per Rule.
Flat Keel Plates, breadth and thickness	10 x 2 1/2	10 x 2 1/2						
Plates in Garboard Strakes, breadth and thickness	36	36	36	36				
Do. from Garboard to upper part of Bilges	46	46						
Do. of doubling at Bilge, or increased thickness, and length applied								
Do. from upper part of Bilge to lower edge of Sheerstrake	12	12	9 1/2	9 1/2				
Do. Sheerstrake, breadth and thickness	36	36	36	36				
Do. of doubling at Sheerstrake, and length applied								
Butt Straps to outside plating, breadth and thickness	9 1/2 x 1 1/2	9 1/2 x 1 1/2	9 1/2 x 1 1/2	9 1/2 x 1 1/2				
Lengths of Plating	10 feet	10 feet						
Shifts of Plating, and Stringers	Two framed	Two framed						
Gunwale Plate on ends of <u>Upper</u> Deck Beams, breadth and thickness	40	48	48	48				
Angle Iron on ditto <u>See No. Number</u>	4 x 4 x 3/8	4 x 4 x 3/8						
Tie Plates (fore and aft), outside Hatchways	13 1/2	15	15	15				
Diagonal Tie Plates on Beams (No. of Pairs)	13 1/2	15	15	15				
Planksheer material and scantling								
Waterways do. do. <u>See No. Number</u>	14 x 4 1/2							
Flat of Deck do. do. <u>See No. Number</u>	4	4						
How fastened to Beams	<u>See No. Number</u>							
Stringer Plate on ends of <u>Upper</u> or <u>Middle</u> Deck Beams, breadth and thickness	43	41	41	41				
Angle Irons on ditto (No. of Pairs)	4 x 4 x 3/8	4 x 4 x 3/8						
Tie Plates, outside Hatchways	13 1/2	16	16	16				
Diagonal Tie Plates on Beams (No. of pairs)								
Waterways materials and scantlings								
Flat of Deck do. do.	<u>See No. Number</u>	6 1/2						
How fastened to Beams								
Stringer Plates on ends of <u>Lower</u> Deck Beams, breadth and thickness	36	31	31	31				
Angle Irons on ditto (No. of Pairs)	4 x 4 x 3/8	4 x 4 x 3/8						
Stringer or Tie Plates, outside Hatchways	13 1/2	16	16	16				
Flat of Deck <u>partly laid of Yellow Pine</u>	3							
Ceiling betwixt Decks, thickness and material								
Do. in hold <u>down to 3/4</u> do. <u>See No. Number</u>								
Clamps or Sprinketting <u>See No. Number</u>	2 1/2	2 1/2						
Main piece of Rudder, diameter at head	6 1/2	6 1/2						
Do. do. at heel	4	8 1/2						
(Can the Rudder be unshipped afloat?) <u>Yes</u>								
Bulkheads No. <u>Six</u> Thickness of		4 1/2		4 1/2				
Do. Height up <u>to main deck, and two to upper deck</u>								
Do. How secured to the sides of the ship <u>Between double frames</u>								
Do. Size of Vertical Angle Irons, <u>3 x 3 x 3/8</u> and their distance apart, <u>30 inches</u>								
Do. Are the outside Plates doubled two spaces of Frames in length? <u>Yes</u>								

Planksheers, material Iron or, if none, in what manner compensated for.

Bulkheads Iron Hawse Timbers Iron

Class Hartfield's patent Pall Bitt Iron

Frames extend in one length from Keel to Gunwale Riveted through plates with 7/8 x 3/4 Rivets, about 6 1/2 apart.

Reverse Angle Irons on the floors extend across the middle line to middle deck

Planksheers, and to Gunwale alternately

Connections. Are the various lengths of Plates and Angle Irons properly connected? Yes And are their butts properly shifted? Yes

Planksheer, Garboard, double or single Riveted to Keel, double or single at upper edge with Rivets (1 1/2 x 7/8 in.) diameter, averaging (5 1/2 x 5 1/2 in.) from centre to centre.

Edges from Garboards to upper part of Bilge, worked Clencher, double or single Riveted; with Rivets (7/8 x 3/4 in.) diameter, averaging (3 1/2 ins.) from centre to centre.

Butts from Keel to turn of Bilge, worked carvel with butt straps (1 3/8 x 1 1/8 thick, treble, double or single Riveted; with Rivets (7/8 in.) diameter averaging (3 1/2 ins.) from centre to centre.

Do the Butt Straps lay over and Rivet through the lands of the strakes above or below? No

Edges of Sheerstrake, double or single Riveted. At upper edge Single At lower edge Double

Butts from Bilge to Planksheers, worked Carvel with Butt Straps (1 1/8 thick, double or single Riveted; with Rivets (3/4 in.) diameter, averaging (3 1/2 ins.) from centre to centre. Breadth of laps in double Riveting (5 1/2 inches) Breadth of laps in single Riveting (3 inches)

Butts of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Double Stringers at upper middle decks and Sheerstrakes for half length treble riveted

Planksheer, how secured to the plating of the sides, { Explain by Sketch, } See Sketch

Waterway " " planksheer and to the Beams, { if necessary. }

Beams of the various Decks, how secured to the sides? Beam ends turned down No. of Breasthooks, Six Crutches, Three

What description of Iron is used for the Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Messend Iron

Manufacturer's name or trade mark, Messend Iron Company

We certify that the above is a correct description of the several particulars therein given.

Builder's Signature (Signed) for Blackwood & Gordon Surveyor's Signature, Andrew McGeachan Manager

Sam. Lupton Lloyd's Register

IRON 448 - 0228

**Workmanship.** Are the butts of plating planed or otherwise fitted? Planed  
 Do the edges of the carvel work and of the butts lay close together throughout their length without requiring any making good of deficiencies? Yes  
 Do the fillings between the ribs and plates fill in solid with single pieces? or are they in short lengths of various thicknesses? Completed  
 Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? Yes and are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? Yes  
 Are there any rivets which either break into or have been put through the seams or butts of the plating? A few **8875 Iron**

Her Masts, Bowsprit, Yards, &c., are in Good condition, and sufficient in size and length. If they are of Iron or Steel give the scantlings of Plating, Angle Irons, &c., and further explain by a Sketch showing how the lower Masts and Bowsprit are constructed, showing the number of Plates and Angle Irons, mode of riveting, quality of Materials, and if stamped with Maker's name.

State also Length and Diameter of Lower Masts and Bowsprit No Bowsprit

Lower Masts of Iron. Circumference of 3 plates 16, each, three Angle Irons 4x3x5/8  
 Length of fore mast 85 feet } Diameters at partners 27 inches  
 " " Main Mast 78 feet }

No.	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test as per Certificate.	In. req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.	No.	Weight. Ex. Stock.	Test as per Certificate.	Wt. req'd per Rule.	Test req'd per Rule.
	Number for equipment	24839											
	Fore Sails,	Chain	150	1 3/4	55 2/3 tons	1 1/2	55 2/3 tons	4868	31.2.14	29.11.2.14	30.0.0	28 1/2 tons	
	Fore Top Sails,	Chain	150	1 3/4	55 2/3 "	1 1/2	55 2/3 "	4868	31.0.14	29.9.1.14	30.0.0	28 1/2 "	
	Fore Topmast Stay Sails	Chain Cable	90	1 3/4	10.10.0.0	1 1/2	158	4868	26.1.7	28.12.0.0	25.2.0	25 1/2 "	
	Main Sails,	Hawser	90	9 1/2		9 1/2							
	Main Top Sails,	Towlines	90	6 1/2		5 1/2							
		Warp	180	5 1/2									
		All of good quality.	180	4 1/2									
	Stream	Chain Cable	90	9 1/2		9 1/2		Stream	1	12.0.2	11.11.1.0	12.0.0	
								Kedges	1	6.0.8		6.0.0	
									1	3.0.0		3.0.0	

and Spare Rigging Keen sufficient in size and Good in quality. She has Eight Long Boats and Two fitted as Life Boats  
 Her Standing and Running Rigging Keen sufficient in size and Good in quality. She has Eight Long Boats and Two fitted as Life Boats  
 The present state of the Windlass is Keen and Rudder Good Pumps One in each compartment connected with engine

**Engine Room Skylights.**—How constructed? Of Iron seven feet above deck How secured in ordinary weather? With quadrants and lifting covers  
 What arrangements are there for deadlights in such for bad weather? Glass half an inch thick protected with brass wire guards & tarpaulins

**Coal Bunker Openings.**—How constructed? Rims and lids How are lids secured? Screw & bonnet How high above deck? About one inch

**Scuppers, &c.**—What arrangements are there beyond the scuppers on deck, for clearing upper deck of water, in case of a sea coming on board?  
No Bulwarks except Iron Rails

**Cargo Hatchways.**—How formed? Flat beams above deck wrought against beams and carlings lower edge upon Bull Irons State size 7 feet by 8 feet  
 If of extraordinary size, state how framed and secured? Framed with iron plating 28 inches by 1 1/2 inch

What arrangement for shifting beams? Two Bull Iron plates beams with angle Irons connected with descent bolts and nuts

**Hatches, themselves, whether strong and efficient?** Yes, strong & efficient **Main Hatchways.**—State size 24 feet by 14 feet

Order for Special Survey No. 543 DATES of  
 Date 22<sup>nd</sup> August 1870 Surveys held  
 Order for Ordinary Survey No. \_\_\_\_\_ while building  
 Date \_\_\_\_\_ as per  
 No. 107 in builder's yard. Section 18.  
 1st. On the several parts of the frame, when in place, and before the plating was wrought  
 2nd. On the plating during the progress of riveting  
 3rd. When the beams were in and fastened, and before the decks were laid  
 4th. When the ship was complete, and before the plating was finally coated or cemented  
 5th. After the ship was launched and equipped  
Special Survey while building 30<sup>th</sup> August 1870 to 31<sup>st</sup> March 1871 in all 24 Visits

**General Remarks,** This vessel has been built under Special Survey as per Order N<sup>o</sup>. 543. She is Brig rigged, having flush upper deck, except covered in spaces over engines, and for Officer's accommodation

The stringer of Middle and lower decks are in excess of the Rules. She has also an Iron deck to the middle deck partly laid with wood. The upper deck stringer plate as per section 28 is a little less in width than the Rule because of her being over eight breadths in length, but is compensated for by an additional Angle Iron all fore and aft at Gunwale both sides.

In what manner are the surfaces preserved from oxidation? Inside to upper part of belged Portland Cement from belged impurities Outside Pricks of Iron paint  
 We are of opinion this Vessel should be Classed 100 A 1

The amount of the Entry Fee .....£ 5 : : : is received by me,  
 Travelling Expenses (if any) .....£ - : - :  
 Special .....£ 73 : 15 : 6  
 X Certificate ..... : : :  
Saml. Laphroa  
R. J. B. O'Connell

**Committee's Minute** 11<sup>th</sup> April 1871 This three dated Genl. Minutes appears slightly in classification as recommended above.  
**Character assigned** 100 A 1 A TCP  
3 decked  
J. M. L.  
J. P. M.  
 Lloyd's Register Foundation